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RECORDS OF CICADAS FROM NORTH AMERICA WITH DESCRIPTIONS OF NEW SPECIES.

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In the present paper additional records of distribution are given for several species recently described by the writer, and four new species are recognized, one of them being *Okanagana nigriciridis*, from San Bernardino Co., California, one of the most beautiful of North American Cicadas. Two others are described from the same region, which seems to contain Cicadas not to be found elsewhere in California.

Tibicen cultriformis (Davis).

In the original description published in this JOURNAL in 1915, two males and two females were recorded from Arizona. An additional male from Nogales, Arizona, October 11, 1918 (G. A. Kusche), collection California Academy of Sciences, has since been examined.

Tibicen inauditus Davis.

In the original description published in this JOURNAL in 1917, three males, collected July 15, 1917; by Miss M. McGill, in Oldham County, northern Texas, are recorded. Miss McGill has since collected at Tascosa in the same county, a male on June 25, 1918, and two males on July 12, 1919. These specimens are all marked alike and expand about 65 millimeters each. They resemble, but are much

smaller, have less prominent eyes, and are differently marked from what we identify as *Tibicen montezuma*, examined from Texas and Arizona, which expands from 75 to 80 millimeters.

Tibicen cinctifera (Uhler). Pl. I, figs. 1, 2 and 3.

This species was described in the Transactions of the Maryland Academy of Science, 1, p. 156. 1892, under the name of *Cicada cinctifera*. The original description calls for an insect with front wings expanding from 76 to 85 millimeters, with the "tip and middle of base of tergum coated with white powder," and the "opercula greenish white, black at base, pruinose, triangular, a little rounded at tip, less than half as long as the venter." Of the material examined Uhler says: "Three specimens from Las Cruces, New Mexico, have been kindly sent to me by Mr. C. H. Tyler Townsend, and a large female was captured in Northern California by my friend, James Behrens."

The Uhler collection, in the United States National Museum, was examined in June, 1920, for the specimens mentioned in the original description. The following were found: male with "Las Cruces" on first label, "129" on second label, "P. R. Uhler collection" on third label, and "*Cicada cinctifera* Uhler, New Mex." on fourth label; male labeled "Las Cruces, P. R. Uhler collection, 129," and a female bearing three labels reading "N. Calif., Behrens, P. R. Uhler collection," These specimens, which are no doubt three of the four mentioned in the original description, have the "tip and middle of base of tergum coated with white powder," and the opercula a little rounded at the tips, with the outer edges nearly parallel to each other. In all three the costal margin of the fore wing is colored a rather bright orange to the end of the radial cell. Also in the United States National Museum there are two males and four females from Brewster Co., Texas, Rio Grande, June 13-17, 1908, collected by Mitchell and Cushman, that are like the typical material in the shape of the opercula and in coloring.

In the writer's collection there are the following specimens like Uhler's types of *cinctifera*: a male from Del Rio, Texas, Devil's River, July 3, 1917, collected by Dr. H. H. Knight, and a male from Mesilla, New Mexico, June 28, 1897, received from Prof. Albert P. Morse. Mesilla is in Donna Anna Co., New Mexico, on the Rio Grande and within five miles of Las Cruces the type locality.

Lately three males and three females have been examined, collected about five miles from El Paso, Texas, June 23, 1919, by Mr. H. H. Willis, and kindly sent to me by Mr. E. R. Sasser of the Federal Horticultural Board. In the Academy of Natural Sciences, Philadelphia, there is a male from Langtry, Valverde Co., Texas, Aug. 24, 1912, 1.050-1.550 ft., collected by Rehn and Hebard.

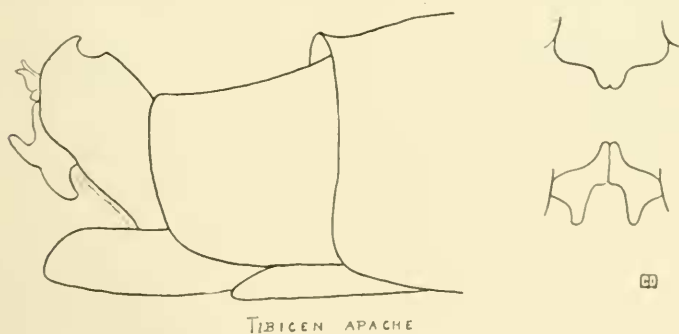
On plate 4, figure 25, *Genera Insectorum*, there is a figure of a cicada said to be *cinctifera*, but the fore wing is much too broad in proportion to its length, as will be noted by comparing it with the figures on the plate accompanying this article reproduced from photographs of the Mesilla male, and one of the El Paso females, referred to above.

Another species heretofore confused with *cinctifera*, and apparently more common than it, is here described as new.

Tibicen apache new species. Pl. I, figs. 4, 5 and 6.

Type male and allotype female from Florence, Arizona, July 29, 1917 (Dr. H. H. Knight). Davis collection.

Resembles *Tibicen cinctifera* (Uhler), but has sharper pointed opercula, the outer sides of which are not parallel, but converge; is without the central pruinose spot at the base of the tergum, and instead of having the dorsal part of segment eight all pruinose, the whitened area is reduced to two spots with



a black space between. In the allotype the plates that correspond to the opercula of the male, are sharper pointed than in *cinctifera*, the double notch in the last ventral segment is usually deeper, the terminal spine is more robust, that is, has a broader base, and the abdomen is less tapering at the extremity. In the three types of Uhler's *cinctifera* in the United States National Museum, the costal margin of the fore wing is bright orange to the end of the radial

cell, also the hind margin of the pronotum or collar, whereas in *apache* the color is light yellow or straw-color. The membranes at the base of both pairs of wings are orange or at least usually much darker than in *apache*, where they are white or light gray. Some of these differences in structure and color are more clearly brought out in the illustrations.

MEASUREMENTS IN MILLIMETERS.

	Male Type.	Female Allotype.
Length of body	25	25
Width of head across eyes	10	10
Expanse of fore wings	71	75
Length of operculum	6.5	

In 1917, Dr. H. H. Knight and Dr. Joseph Bequaert, while in Arizona, collected many specimens of this species, which were later recorded by the writer in this JOURNAL for December, 1917, under the name of *Tibicen cinctifera*. As a matter of fact, only the male from Del Rio, Texas, Devil's River, July 3, 1917, was of that species, all of the remainder belonging to what is here called *apache*.

The following typical material of *apache* from Arizona is in the writer's collection: Florence, July 29, 1917, fifty-four males, thirteen females (Dr. Knight and Dr. Bequaert); Black Canyon, Bumble Bee, July 31, 1917, male (Dr. Knight); Tempe, August 1, 1917, four males, two females (Dr. Bequaert); Grand Canyon, Lower Bright Angel trail, August 2, 1917, three males (Dr. Knight); Buckeye, August 7, 1917, six males, twenty-one females on poplars along irrigation ditch (Dr. Knight and Dr. Bequaert); Palomas, August 8, 1917, one male (Dr. Knight). Phoenix, July, 1913, thirteen males, three females (Dr. R. E. Kunze), and July, 1914, twenty-eight males and seven females (Dr. Kunze). There are also numerous examples of this species in the collection of the United States National Museum. Dr. Knight says of the specimens from Florence: "On mesquite, song continuous, even toned, moderately shrill note."

There are several color varieties of *apache*, the commonest one having the body mostly brown or brownish instead of black. It was at first thought that specimens having the dorsum light brown variegated with pale straw-color, were immature individuals, but the accumulation of considerable material has shown that this is not the case. Specimens of the pale variety range all of the way in color

from a light brown with darker marks, particularly on the head and mesonotum, to very pale, almost unicolorous individuals from Utah. The following belong to the variety: Palomas, Arizona, August 8, 1917, two males (Dr. H. H. Knight); Yuma, Arizona, July 5, 1918, male and female (A. M. Gaudin); Yuma, California, August, female (Prof. H. F. Wickham); Riverside Co., California, female (E. R. Leach); Needles, California, August 3-4, 1919, eight males (Rehn and Hebard); Washington Co., Utah, male and "Utah," male, both without date. In the Academy Natural Sciences, Philadelphia, there is a female, collected at light, Yuma, Arizona, July 28, 1907 (Rehn and Hebard).

In Howard's Insect Book, plate 28, figure 13, a female *Tibicen apache* is figured under the name of *Cicada vitripennis*.

Tibicen transversa (Walker). Pl. II, fig. 1.

This species was described from Vera Cruz, Mexico, by Francis Walker in *Insecta Saundersiana*, 1858, and was later figured by Mr. Distant in *Biologia Centrali-Americana*, Homoptera, plate 2, figure 1. In this figure the first and second transverse veins of the fore wing are not as clouded as in the two specimens, I have examined, or as called for by Walker, who says: "Fore wings with the first and second transverse veins clouded with brown." Mr. Distant, however, in the text says: "Opercula long, triangular, reaching the base of the fourth abdominal segment. Apices of the opercula obtuse; tegmina spotted with fuscous near the apex." Uhler, in the *Transactions, Maryland Academy of Science*, 1, p. 155, 1892, states of *Cicada transversa*: "The type came from Mexico. I have examined a specimen from Texas." In the list of Coleoptera, Lepidoptera, Diptera and Hemiptera collected in Arizona by the Entomological Expeditions of the University of Kansas in 1902 and 1903, *Kansas University Science Bulletin*, volume 2, number 12, May, 1904, Prof. F. H. Snow records *Cicada transversa* from two localities in southwestern Arizona, collected in 1903. We have examined some of these specimens and they are what is described in this paper as *Tibicen apache*.

The following specimens of *transversa* have been examined:

Padre Island, Texas, August 23, 1915, male. Collection University of Michigan, and examined through the courtesy of Prof. F. M. Gaige. This specimen is figured.

Galveston, Texas, August 22, 1918, male (E. C. Wurzlow). Davis collection. Mr. Wurzlow wrote that he heard this insect singing, and found it on a fence over a clump of *Amaranthus*. He also heard several others in the gardens about the houses.

***Tibicen texana* (Davis).**

In the original description in this JOURNAL for 1916, this species was recorded from three localities in Cameron County, southern Texas. The following Texas specimens have since been examined: Spofford, Kinney Co., July 8, 1907, male; Cotulla, Lasalle Co., 450 ft., August 13-14, 1912, male; Uvalde, Uvalde Co., 1,000-1,100 ft., Aug. 21-22, 1912, male; Del Rio, Valverde Co., 900-1,100 ft., Aug. 22-23, 1912, male and female in copulation; Midland, Midland Co., 2,779 ft., Sept. 19, 1912, male. These six specimens are in the Academy of Natural Sciences of Philadelphia and were collected by Rehn and Hebard.

The female of this species has never been described, so it may be well to state that the notch in the last ventral segment is broadly V-shaped with the sides of the V slightly sinuate, as in *olympusa* (*sordidata*), but judging from the only female of *texana* examined the V incision has the sides more evenly curved and broadly rounded out than in *olympusa*. In addition the head is broader than in that species.

***Tibicen vitripennis* var. *bequaerti* Davis.**

This insect was described and figured in the JOURNAL OF THE NEW YORK ENTOMOLOGICAL SOCIETY for December, 1917, under the name of *Tibicen viridifascia* var. *bequaerti*. The type and four paratypes were recorded from Richmond, Texas, June 23, 1917, and four paratypes from Wharton, Texas, June 24, 1917, all collected by Dr. H. H. Knight. It was stated at the time that the eyes were prominent in these specimens; also that the basal cell of the fore wing was clear, slightly touched with black along the fore margin. More material has been examined, and the writer now thinks that this insect should be considered as a variety of *vitripennis* Say, instead of *viridifascia* Walker, particularly on account of the more elongate shape of the fore wings, and the clearer basal cell. In the writer's collection there are at present thirty examples of *vitripennis*, and when these are compared with examples of variety

bequaerti having a like expanse of wings, they invariably are much narrower across the eyes, in other words the variety is a broad headed insect as shown by the figure accompanying the original description.

In the United States National Museum there is a female specimen of *Tibicen bequaerti* from Columbus, Texas. It bears a label stating that it was figured in the "Insect Book, Pl. 28, fig. 15." The wings in this specimen expand 76 mm., head 12 mm. across eyes length of body 25 mm., ventral notch broad and shallow. A female *Tibicen vitripennis* Say from Louisiana with length of body also 25 mm. has the width of head 11 mm., ventral notch deeper than in the Texas example and double. A female *vitripennis* from Alexandria, La., June 22, 1910 (E. S. Tucker), expands 75 mm., length of body 25 mm., has the width of the head 11 mm.; ventral notch broad and shallow, and feebly double. In the writer's collection there is a female *bequaerti* from New Orleans, La., June, 1918 (H. E. Hubert), with expanse of fore wings 72 mm., length of body 23 mm., and width of head across eyes 10 mm. The ventral notch is simple.

It may not prove a very constant character, but in all of the specimens of *bequaerti* the transverse black stripe on the head between the eyes, does not reach the eyes, whereas in *vitripennis* the stripe continues right across the front of the head in 28 out of the 30 specimens at hand, and in the two exceptions the stripe almost reaches the eyes.

Tibicen knighti Davis.

This species was described and figured in the JOURNAL OF THE N. Y. ENTOM. SOC. for December, 1917, shortly after which Dr. H. H. Knight contributed the following additional information: "The new *knighti* was taken in Sabino Canyon of the Santa Catalina Mountains, at an altitude of about 6,500 to 7,000 feet. I spent about five minutes trying to locate the first one; I could not see it, and looked first for a Cicada and then for an Orthopterous insect. I had to give it up and scare it out of the bush before locating it. The species preferred to alight on the shrubbery that covered the rocky slopes of the canyon, among the many giant cacti. I remember I saw one female and missed it by not being careful."

Tibicen arizona (Davis).

When the original description of this species was published in this JOURNAL for March, 1916, only males had been examined, all collected by Prof. F. H. Snow in the Santa Rita Mts., Arizona. Since then a female collected by Prof. Snow at the same place and time has come to hand. It is like the males in general color and markings. It expands 54 millimeters; length of body 17 millimeters; last ventral segment with the shallow notch broadly open and its sides slightly sinuate. In the allied species *castanca*, the notch is broadly open, but is double.

Several specimens of a species closely resembling *arizona*, from Cuernavaca, about 40 miles south of Mexico City, Mexico, have been examined. One bears a label reading "*Scylambria modesta* Dist.," with "(Uhl)" in the lower left-hand corner. Distant's *modesta*, now placed in the genus *Ollanta*, has the "tympanal coverings large, their apices subacute anteriorly but not interiorly covering cavities." In *arizona* and the species from Cuernavaca, the tympana completely cover the cavities.

Okanagana mariposa Davis.

The following California records of this species, originally described from Mariposa County, were received in 1920: Upland, San Bernardino Co., June 18, 1920, male; July 1, 1920, five males, four females; July 2, 1920, male and two females (Miss E. P. Hewlett). Angeles Forest, Barley Flats, 5,000 ft., June 24, 1918, two females (Victor Duran). Mr. Duran writing of this species states that he found it "extremely abundant in the chaparral in the vicinity of Barley Flats, Sierra Madre Mountains on June 24, 1918. . . . That day and the one preceding were hot and insects of all kinds were most unusually abundant." Alhambra, Los Angeles Co., July 4, 1920, twenty-nine males and nineteen females; July 6, 1920, two males and ten females. Under date of July 8, 1920, Mr. Duran wrote of this lot, they occurred "in the chaparral of the upper parts of the canyons of the Tujunga and West Fork of the San Gabriel River, altitude 4,000 to 5,500 feet." Nevada Co., August 11, and August 13, 1920, two males (E. R. Leach).

Okanagana rimosa (Say).

In this JOURNAL for 1919, page 203, it was stated that Say's two specimens of this species, collected by Nuttall in 1811, no doubt came

from along the Missouri River it ranges to near North or South Dakota, and a male from Sioux City, in the Missouri, was identified at that time as falling in 1875 with Say's description. Recently Mr. O. A. Stevens has kindly given me a male collected June 15, 1895, at Mandan, Morton Co., near Bismarck, North Dakota. This specimen comes from what is believed to be quite the type locality. It is a trifle smaller than the type example, especially in dimensions, but otherwise is the same.

Okanagana nigriviridis new species. (Pl. II, fig. 1.)

Type male from Ontario, 1896. Description: Length, July 1, 1896. Miss Esther D. Huxley. Type collection.

Alatype from same locality July 1, 1896. (Miss Huxley). General coloration.

A conspicuously beautiful green and black species, with short body and narrow wings.

Head across eyes nearly as broad as front margin of the pronotum, green and front both prominent, clypeus distinct and angular. Pronotum, with the humeral angles rounded, and the anterior angles well defined. It is wider behind each side near the middle of the outer side, and is greenish. The posterior angles rather pointed, with the outer side greenish narrow. The outer side slightly hairy, the hairs confined to the region about the base and the apex of the head. The

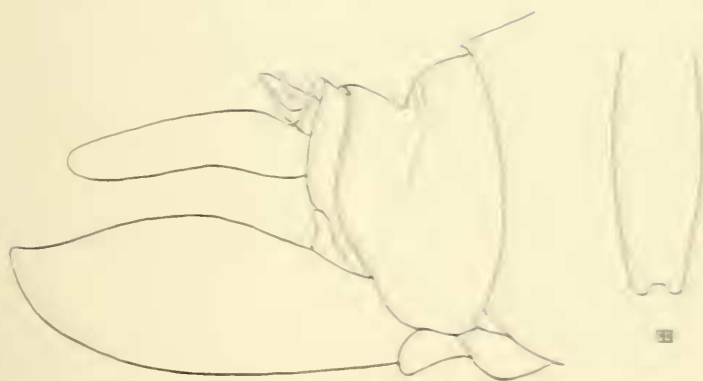


FIG. 1. *Okanagana nigriviridis*.

transverse rings are covered with a silvery pubescence. The aedeagus of the abdomen is hairy beneath longer but not equal in extent to beneath the outer segments. The outer side of the base is hairy beneath except that there is a silvery pubescent area just side of base of the segments. There are also small hairs behind the legs. The first ventral segment of the feet is rounded behind

sinnate near the center: in the allotype the last ventral segment is narrowly notched, the notch extending only half way to the base. Uncus when viewed in profile arched above, sinuate beneath, and when viewed from above notched at the extremity.

Head black above, supra antennal plates and an irregular area behind the ocelli, green. Pronotum green variegated centrally with black, especially in the depressions or grooves. Mesonotum green with four obconical black spots along the anterior margin, the outer pair about twice as long as the central pair; from the central pair extends a black line backward to the elevated \times , where it either forks or is represented by two spots. There are also two black spots, one near each of the anterior extremities of the \times . There is an irregular black line extending each side from the elevated \times to the base of the fore wings. Metanotum green, irregularly spotted with black near the base of each hind wing. Front wings with the venation conspicuously black, except the yellowish-green front margin, the clouded green basal cell, and the green veins surrounding the anal area. In the hind wings the marginal cells are surrounded by more delicate blackened veins, while the venation on the basal half of the wing is greenish, the anal areas being opaquely greenish-white. Membranes at base of both pair of wings are greenish-white, those of the front wings slightly yellowish on posterior margin. Abdomen green above with the commencement of a black dorsal vitta on the first segments, a rather conspicuous black stripe on the front margin of segment three; less conspicuous ones on segments two and four, or the last may be wholly wanting. In addition segments three to six have two black spots on each side, the upper rounded and the lower linear in form. In the allotype there is an irregular black spot each side on segment nine. Uncus green, blackened along lower margin. Beneath, the head is black, the frontal sulcus partly green, the terminal part of the rostrum black, the legs green striped with black, claws and spines tipped with black, abdomen green with the usual basal dark spot, which in this instance is much reduced; valve green.

MEASUREMENTS IN MILLIMETERS.

	Male Type.	Female Allotype.
Length of body	25	25
Width of head across eyes	7	7
Expanse of fore wings	64	65
Length of valve	5	

In addition to the type and allotype two males were collected at Upland, California, one July 20, and the other July 29, 1920. Miss Hewlett writes: "One which I caught was singing more like a Katydid; not a steady song." In some of the species of *Okanagana* the song is quite steady.

The shape of the head in *nigriciridis* is much like that of *synodica*, also as in that species the valve is long. The dark markings on the head and thorax are also similar. On the other hand the fore wings are not as broadly rounded at the extremities as in *synodica*, the radial cell is more elongate, and the eighth apical area is proportionately longer. For the present this very distinct species can be placed next to *arctostaphylæ*.

Okanagana synodica (Say).

This species has been recorded from Montana, Nebraska, Kansas, Colorado, New Mexico and Texas. (See JOURNAL N. Y. ENTO. SOC., June-Sept., 1919, p. 211.) The following records extend its range to two additional states: Parowan, Utah, two males, Palmer's assorting, No. 1201, Uhler collection, U. S. Nat. Museum. Medicine Bow, Wyoming, about 6,600 ft., June 22-24, 1920, four males, collection Am. Museum of Natural History. Dr. Frank E. Lutz collected these four specimens and noted at the time "the small brown Cicada on grass, has a continuous note, but sometimes continues for only a short time."

Okanagana balli Davis.

In the original description, JOURNAL N. Y. ENTO. SOC., June-Sept., 1919, this species is recorded from Iowa, Minnesota and South Dakota. Additional records are as follows: Lake Okoboji, Iowa, July 6, 1917 (L. L. Buchanan), collection U. S. Biological Survey. Lake Okoboji, Iowa, July, 1919, male fed to a young Arkansas Kingbird by its parent and taken from the young bird by T. C. Stephens. About seven or eight other specimens were fed to the young birds. Blue Rapids, Kansas, June 20, 1919, three males and a female (O. A. Stevens). "Nebraska," male, collection Mus. of Comparative Zoology, Cambridge, Mass. Kalispell, Flathead Co., Montana, June, male (Prof. H. F. Wickham).

Okanagana vanduzeei Distant. Pl. II, fig. 3.

Mr. E. R. Leach has kindly presented me with six males of *O. vanduzeei* var. *consobrina* collected in Mendocino County, California from June 20 to 27, 1920. These northern specimens are a little smaller than the average from the type locality, San Diego County, but otherwise there appears to be no difference.

We here present a figure of the genitalia of a male *O. vanduzeei*, so that a comparison may be made with the new *Okanagana simulata*.



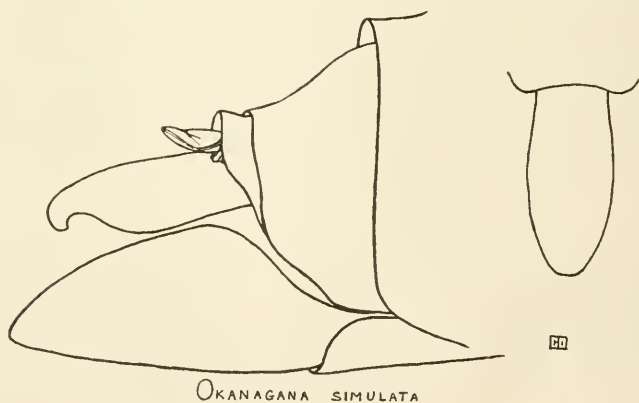
Okanagana simulata new species. Pl. II, fig. 4.

Type male from Upland, San Bernardino Co., California, June 21, 1920 (Miss Esther P. Hewlett). Davis collection.

Allotype from same locality, June 29, 1920 (Miss Hewlett). Davis collection.

Resembles *Okanagana mariposa* in size and color, and *Okanagana vanduzeei* somewhat in color and form and in having a hooked uncus.

Head rather large and only a little narrower than the front margin of the pronotum; front conspicuously hairy and moderately produced; median sulcus



well defined. Pronotum with both the humeral and anterior angles rounded. Sides of pronotum without serrations. Front wings rather pointed with the outer edge forming a somewhat straight line. Beneath conspicuously hairy; last ventral segment broadly rounded and somewhat truncate at the extremity. In the female allotype the notch is sharp at the bottom with the sides somewhat sinuate. Uncus when viewed in profile hooked at the extremity.

Head black with the supra-antennal plates orange in the type; the allotype has in addition a spot on the front and the groove behind the middle ocellus dull orange. The transverse rugae black, bordered by orange, but so covered with silvery hairs that the colors are considerably hidden. Pronotum black, the hind margin edged with dull orange. In the allotype the front margin is also narrowly edged with dull orange, and the grooves show faintly the same color. Mesonotum black, bordered on the sides posteriorly with dull orange. The elevated ∇ black, touched with dull orange at top and on the hind limbs; in front of the fore limbs there are the usual four orange spots arranged in a semicircle. Metanotum black, edged in part posteriorly with dull orange. Front wings with the venation almost black, with a submarginal dull orange streak extending to the end of the radial cell. Base of fore wing blackened, including the basal cell, membrane orange. Hind wings orange and dark brown or almost black at base, with the outer veins lighter than in the fore wings. Tergum black, but feebly shining, hairs silvery, uncus black. The legs are irregularly striped with orange; the femora paler at the outer joints. Beneath the abdominal segments are black centrally, edged posteriorly and on the sides with orange; the last segment is broadly edged with orange. Valve black beneath, orange along the upper margin.

MEASUREMENTS IN MILLIMETERS.

	Male Type.	Female Allotype.
Length of body	27	26
Width of head across eyes	9	9
Expanse of fore wings	75	77
Length of valve	5	

In addition to the type and allotype three males were collected at Upland, California, by Miss Hewlett in 1920, as follows: June 23, July 1 and July 5. In the Museum of Comparative Zoology, Cambridge, Mass., there is a male collected at Claremont, California, June 8, 1882. This locality is five or six miles to the west of Upland. I am indebted to Mr. Nathan Banks for the privilege of examining this specimen.

While this species on account of its size, large head, rather straight outer margin to the fore wings and coloring, resembles

Okanagana mariposa, it differs in having a hooked uncus instead of a nearly straight one; it is also more hairy. From *Okanagana vanduzeei*, which has a hooked uncus, it differs in being much larger, in having the eyes more prominent, the anterior angles of the pronotum more rounded, the front wings with the outer margin straighter, and the last ventral segment more rounded at the extremity, instead of somewhat sinuate. It, however, should be placed next to *vanduzeei*.

***Okanagodes gracilis* Davis.**

In the original description, JOURNAL N. Y. ENTO. SOCIETY, June-Sept., 1919, this species was reported from Utah, and two localities in Arizona. On August 6, 1919, at Bagdad, San Bernardino Co., California, Mr. Morgan Hebard collected two males on low plants in an arid environment. He was attracted by the song, which he at first thought was produced by an Orthopterous insect. The Cicadas ceased singing when he was still some distance from them, which made their final detection rather difficult.

***Platypedia putnami* var. *keddiensis* Davis.**

Recorded from Keddie, Plumas Co., and Lassen Co., California, also Corvallis, Oregon. Recently Mr. E. R. Leach kindly sent me two males and a female collected May 23, 1920, in Nevada Co., California.

***Platypedia laticapitata* new species. Plate II, fig. 5.**

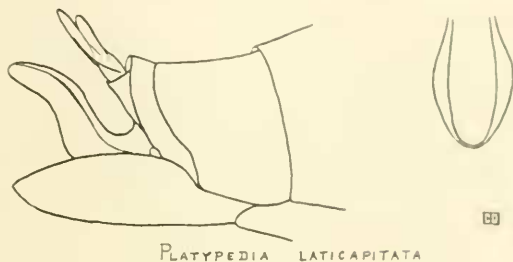
Type male, Upland, San Bernardino Co., California, June 24, 1920; allotype female from the same locality, July 1, 1920; both collected by Miss Esther P. Hewlett, and in Davis collection.

Resembles *Platypedia aperta* Van D. in its narrow fore wings; the uncus, however, is much narrower, and more as in *P. vanduzeei*, from which it differs in not having the broad wings nor the very hairy head of that species. The head is also very hairy in *minor* and *barbata*.

Front of head not prominent and about as in the other small species of the genus; median sulcus moderately well defined and broadening on the lower part of the face. The head is wide across the eyes, and the pronotum broadens from the collar toward the anterior margin, so that it is proportionately wider just behind the eyes than in any other *Platypedia* so far examined. Hairs on the greater part of the dorsal surface short and appressed, giving the insect a dull gray-black appearance; in *aperta*, *vanduzeei*, *minor* and *barbata* the hairs on the upper surface of the thorax are rather long, upright and dark colored. Hairs on the underside of the body longer and lighter colored, as is

usual. The fore wings are narrow, and have eight rather long and narrow apical areas; the costal margin is evenly curved. The uncus is upturned at the extremity as in *vanduzeei*, but is more broadly rounded on the end than in that species. Last ventral segment in the allotype quite hairy, with the notch broadly v-shaped.

General color dull black, the lighter hairs giving a general grayish appear-



ance. Fore femora black on nearly the entire inner side; chestnut colored striped with black on outer side; extremities of femora pale. The hind margin of the pronotum, as well as the other usual paler markings are dull orange, while the membranes at the base of the fore wings are brighter orange.

MEASUREMENTS IN MILLIMETERS.

	Male Type.	Female Allotype
Length of body	17	19
Width of head across eyes	6	6
Expanse of fore wings	44	43
Length of valve	2.5	

This insect should be considered just after *aperta* in the Key to the Genera and Species of *Platypedia* and *Neoplatypedia*, published in the JOURNAL, N. Y. Entomological Society, for June, 1920. Only the type and allotype have been examined.

EXPLANATION OF PLATES I AND II

PLATE I.

- Fig. 1. *Tibicen cinctifera* (Uhler). Male.
- Fig. 2. *Tibicen cinctifera* (Uhler). Female.
- Fig. 3. *Tibicen cinctifera* (Uhler). Under side, enlarged.
- Fig. 4. *Tibicen apache* Davis. Type, male.
- Fig. 5. *Tibicen apache* Davis. Allotype, female.
- Fig. 6. *Tibicen apache* Davis. Under side, enlarged.

PLATE II.

- Fig. 1. *Tibicen transversa* (Walker).
Fig. 2. *Okanagana nigriviridis* Davis. Type.
Fig. 3. *Okanagana vanduzeei* Distant.
Fig. 4. *Okanagana simulata* Davis. Type.
Fig. 5. *Platypedia laticapitata* Davis. Type.
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NOTES ON INDIANA HALTICINI WITH CHARACTERIZATION OF A NEW GENUS AND DESCRIPTIONS OF NEW SPECIES.

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During the ten years that have intervened since my "Coleoptera of Indiana" was issued, a number of interesting Halticini have been added to the known fauna of the State. Some of these are evidently new to science and one of them belongs to none of the genera included by Dr. Horn in his "Synopsis of the Halticini of Boreal America."¹ I have therefore, in this paper, founded for it a new genus, have described eight species and named one variety believed to be new, and have added notes on a number of others. The order followed is that of the genera and species of the Tribe in the Coleoptera of Indiana. My thanks are due to H. C. Fall, of Tyngsboro, Mass., for comparisons made and suggestions given, examples of all the supposedly new species having been submitted to him.

Disonycha pennsylvanica parva new variety.

This is the small form occurring about a cypress swamp in Knox County, and characterized but not named by me on page 1188 of the "Coleoptera." Since it differs from *pennsylvanica* in having the elytra non-alutaceous, almost wholly without punctures and always with a double fold or sulcus along the median black stripe, it may in time be recognized as a valid species, since no intermediate forms have been seen. I found it in numbers about a similar swamp at Sanford, Fla., in April, 1913, and it is probably the form mentioned

¹ Trans. Amer. Ent. Soc., XVI, 1889, pp. 163-320.